

Remarks

As stated above, Applicants appreciate the Examiner's thorough examination of the subject application and request reexamination and reconsideration of the subject application in view of the preceding amendments and the following remarks.

As of the office action of March 17, 2009, claims 1-17, 20, and 23-30 were pending in the subject application, of which claims 1, 11, and 20 are independent claims. With this response Applicants have amended claims 1, 5, 8, 11, and 20. Applicants have also amended the specification to correct a grammatical error in paragraph 41.

A. Claim Objections

The Examiner objected to claim 8 because, as amended in the response filed January 30, 2009, it contained a typographical error and omitted the word "skill." *Office Action* at 4. Applicants have amended claim 8 to correct the error and request withdrawal of the objection.

B. Claim Rejection under 35 U.S.C. § 103

The Examiner has rejected claims 1-2, 4, 7, 11-12 and 15 under 35 U.S.C. § 103 over DAVID EMBLY, ET AL., ONTOLOGY-BASED EXTRACTION AND STRUCTURING OF INFORMATION FROM DATA-RICH UNSTRUCTURED DOCUMENTS, (Conf. of Information and Knowledge Mgmt., D.C., 1998) ("Embly"). *Office Action* at ¶ 5.

Applicants respectfully assert that *Embly* does not disclose, suggest, or teach each and every element of the claimed invention. *Embly* appears to disclose a system that takes unstructured text as input, compares the unstructured text to predefined keywords, extracts keywords from the unstructured text, and produces a structured text document. *Embly* at 1, 3-5. However, *Embly's* process appears to stop there. It does not appear to disclose additional

elements (such as those claimed) that occur after it creates the structured text document. In contrast, amended independent claim 1 recites:

1. A computer-implemented method for generating one or more roles required for a project, the method comprising:

extracting, via a search engine executed by a role generator system, key words from unstructured text associated with the project, wherein the unstructured text is stored on a storage medium accessible across a network;

comparing, by the role generator system, the key words against predefined job skill definitions in a skills taxonomy;

generating, by the role generator system, a skills list based on the comparison between the predefined job skill definitions and the key words;

comparing, by the role generator system, the skills list to one or more predefined role templates wherein:

the predefined role templates include skills required to perform a predefined role; and

the predefined role template is stored on the storage medium;

generating, via a role generator executed by the role generator system, a new role template based on the comparison of the skills list and the predefined role template, wherein the new role template defines a role required for the project and includes job skill definitions required for the project;

displaying the new role template in a graphical user interface on a computing device; and

adding the new role template to a role database.

(Emphasis added; note that the other independent claims contain similar elements and will be discussed collectively—Applicants believe that the analysis of claim 1 applies to the other independent claims as well). Although Applicants respectfully disagree with the Examiner's rejection, the following discussion focuses on the emphasized elements of the claim above.

Even assuming, *in arguendo*, that *Emby* does disclose or suggest some elements of the claimed invention, *Emby* does not appear to disclose at least the emphasized elements. Once

Embly generates its structured text document, it does not appear to then compare its structured text document to predefined role templates (as claimed) or to generate a new role template based on the comparison (as claimed). Rather, *Embly*'s system / method terminates without disclosing or performing the emphasized claim elements. For example, *Embly* discloses an ontology parser that appears to provide a SQL schema that contains keywords or rules. *Embly* at 3. *Embly* also appears to disclose a "main program" that recognizes and extracts those keyword or rules from an unstructured text document. *Id.* at 3-4. Finally, *Embly* appears to disclose a structured-text generator that uses the SQL-schema and the extracted keywords to generate a structured text document that organizes the extracted keywords into a structured text document. *Id.* However, that is where *Embly*'s process appears to end. *Embly* does not appear to then compare its extracted keywords or its structured document to a skills list (as claimed) or generate a new role template (as claimed).

The Examiner cited language in *Embly* against the emphasized claim elements. However, the language in *Embly* appears to be taken out of context—it appears to relate to *Embly*'s extraction of keywords rather than a comparison of *Embly*'s structured text document. In rejecting the claim element that recites, "comparing the skills list to one or more role templates[.]" the Examiner quotes a passage in *Embly*'s page 5 that states, "unbounded sets . . . dominate overall precision . . . [I]f we had cataloged a larger set of skills . . . we would have achieved near 100% recall." *Office Action* at 6. Although the language in the passage may suggest a comparison, the language does not appear to describe a comparison like that of the emphasized claim element, i.e. "comparing the skills list to . . . role templates[.]" Instead, the language in *Embly* appears to disclose a comparison of *Embly*'s keywords to *Embly*'s unstructured document. *See Embly* at 6. The paragraph in *Embly* states:

Lexical object sets are subdivided into bounded and unbounded sets. Unbounded sets, such as car features and job skills, generally dominate overall precision and recall numbers. For example, the 94% recall for all car attributes is due mostly to unbounded model and features sets. Similarly, the unbounded skill set dominates the overall recall for job attributes. In both cases, if we had used larger tuning sets, we could have done better. For example, we missed the car make "MERC" and a number of models (e.g., "Continental", "Town Car", "98 Royale"). If we had used a comprehensive catalog of car makes and models, we would have achieved near 100% recall. Similarly, for jobs, if we had cataloged a larger set of skills, including skills we missed such as "CICS", "DB2", and "BAL", we would have achieved near 100% recall. This kind of error is due to incomplete domain analysis, which is relatively easy to correct in practice.

Embly at 6 (emphasis added). This passage appears to disclose a comparison of *Embly's* keywords (i.e., Continental, Town Car, CICS, DB2, etc.) to *Embly's* unstructured text documents (i.e. newspaper ads) for the purposes of extracting the keywords from the unstructured text. The passage appears to say that if the system uses a larger set of keywords, then it will be able to more accurately extract all the relevant keywords. See *Embly* at 3-4, 6. However, it does not appear to disclose a comparison of *Embly's* structured text document (i.e. *Embly's* output document), to something else, like the claimed comparison of a "skills list to one or more role templates[.]"

Embly's comparison is not analogous to the comparison in the emphasized claim element (i.e. "comparing the skills list to one or more role templates") because that particular claim element does not appear to compare keywords within unstructured text. If the passage in *Embly* were to disclose a comparison of *Embly's* structured document (i.e. *Embly's* output) to something else, such as the claimed role templates (rather than a comparison of *Embly's* keywords to *Embly's* unstructured documents), then *Embly* might be more applicable. However, *Embly* does not appear to disclose such a comparison. This type of comparison appears to be absent from *Embly*.

The Examiner also cited *Embly* against the claimed element that recites "generating . . . a new role template based on the comparison of the skills list and the predefined role template." Respectfully, this citation also appears to be taken out of context. The Examiner states that "*Embly* at least teaches the ready capability to generate a new role template . . . as it explicitly suggests the expansion of the skill set in order to achieve a more accurate recall percentage." *Office Action* at 6. However, as discussed above, *Embly*'s disclosure appears to discuss expansion of a set of keyword, not a comparison of extracted text to a role template, or generation of a new role template, as claimed. The "expansion" described by the Examiner appears to relate to expansion of *Embly*'s keyword set in order to increase accuracy when extracting keywords from an unstructured text document, but not to a comparison of structured text to something else (such as a role template) and generation of a new role template as claimed. As mentioned above, *Embly* appears to disclose a comparison of keywords to unstructured text, but does not appear to disclose a comparison of the extracted keywords and structured text to another item, or generation of a role template.

The Examiner also rejected claims 3, 5-6, 8-10, 13-14, 16-17, 20, and 23-30 under § 103 over *Embly* and U.S. Patent No. 6,275,812 (filed Dec. 8 1998) ("*Haq*"). *Office Action* at ¶ 11. As discussed above, *Embly* does not appear to disclose or suggest all the claimed elements. Nor does *Haq* appear to disclose the missing elements. *Haq* discloses "assessment of employee suitability for a project," but does not appear to disclose or suggest comparison of extracted keywords to a role template and generation of a new role template, as claimed. *See generally Haq*.

Accordingly, Applicants respectfully request withdrawal of the § 103 rejections of independent claims 1, 11, and 20 because the combination of *Embly* and *Haq* does not appear to

disclose or suggest the elements of the claimed invention. Applicants also request withdrawal of the § 103 rejection of claims 2-17 and 23-30 because they depend upon and include all the limitations of the independent claims.

C. Conclusion

In consideration of the amendments and foregoing discussion, the application is now believed to be in condition for allowance. Early allowance of the subject application is respectfully solicited. While Applicants respectfully assert that the subject application is in condition for allowance, the Examiner is invited to telephone Applicants' attorney at (617) 305-2143 to facilitate prosecution of this application.

This response is not believed to necessitate any additional fees. However, in the event that additional fees are due, please charge or credit any refund to our Deposit Account No. 50-2324.

Respectfully Submitted,

Dated: 17 June 2009

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